March 12, 2009

Dr. Steven Chu
Secretary of Energy
U.S. Department of Energy
1000 Independence Ave., SW
Washington, DC 20585

Dear Secretary Chu:

I listened with interest to your comments during the National Clean Energy Project event on February 23, 2009, particularly those concerning the urgent need for Smart Grid communication standards.

As you are doubtless aware, in the Energy Independence and Security Act of 2007, Congress assigned NIST the responsibility for coordinating the development of a framework for communications interoperability among Smart Grid devices. My company is actively involved in one of the Domain Expert Working Groups that NIST has organized in support of its efforts. As a company, we have been working on Building Automation and Smart Grid standards for the past 15 years. We have participated in the DOE electricity roadmap (Grid 2030) and in the development of BACnet (the ASHRAE, ANSI and ISO world standard for building automation networks). Our work has received a GridWise Architecture Council award.

In your remarks on February 23rd, you suggested that we "…lock these people up in a room and say 'Come up with a standard in a few weeks'…". We are the people who have been in the room for the past 15 years, and we can come up with standards, no question—but we'll need sustained funding for critical standards development efforts to accelerate the process.

Why does standards development often take a long time? Although bickering between established vendors sometimes slows down the standards development process, there are other factors.

- There are only a few people who do most of the work. If you can recruit a few of the right people to a standards development project, progress can be rapid; if not, progress will be slow. Within the Smart Grid standards development communities, we know through experience that most of the productive people are.

- The economic return to an individual stakeholder in a standardization process is far from certain. Although a standard may create enormous value for the society at large, there is no guarantee that the developer of the standard will receive any economic benefit. Most of the innovators in a standards process are individual consultants and representatives of small companies or national laboratories.

- It is difficult to get sustained focus from volunteers, whether from large or small organizations. Many potential contributors can simply not afford to participate in any meaningful way.

Standards development processes typically allow time for deliberation and review by a wide range of stakeholders. Our experience is that this improves the quality of standards.

In the realm of standards for data communication, official approval of the standard is no guarantee of market success. Engineers responsible for product development and systems design need applications guides and information on best practices. Compliance and interoperability testing are important to ensuring that products will be able to communicate successfully with each other. Potential customers need to understand the benefits and limitations of the technology in order to make rational buying decisions. And finally, standards for data communication require careful periodic review and revision to ensure that they remain relevant over time.

We will need continuing support from DOE and other agencies to overcome nontechnical regulatory problems. These problems include both the balkanized utility regulatory frame work as well as entrenched industry and regulatory interests.

By funding these efforts directly, I believe that the DOE could rapidly advance the Smart Grid standardization process. This would supplement the GridWise program that is already being funded through the Office of Electricity Delivery and Energy Reliability. I believe that a relatively small amount of money, perhaps $20 Million annually applied to this ecosystem of standards groups would have a huge positive impact on the timeliness and quality of the final standards. How would that money be spent?

- Paying key contributors and standards project leaders
- Conferences, meetings and collaboration infrastructure
- Prototype implementations
- Product testing programs
- Research projects that support standardization objectives
- Educational materials for customers and engineers
- General public relations
- Administrative support

We are prepared to assemble a consortium of people and organizations that can accelerate Smart Grid standards development. With funding, we can help DOE achieve its goals.

Sincerely,

James M. Lee
President/CEO

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